

Group R

Group R Map

Building 4011

Includes Building 4403, Traffic Dispatch

Includes Building 4711, Substation

Building 4171

Building 4172

Building 4500

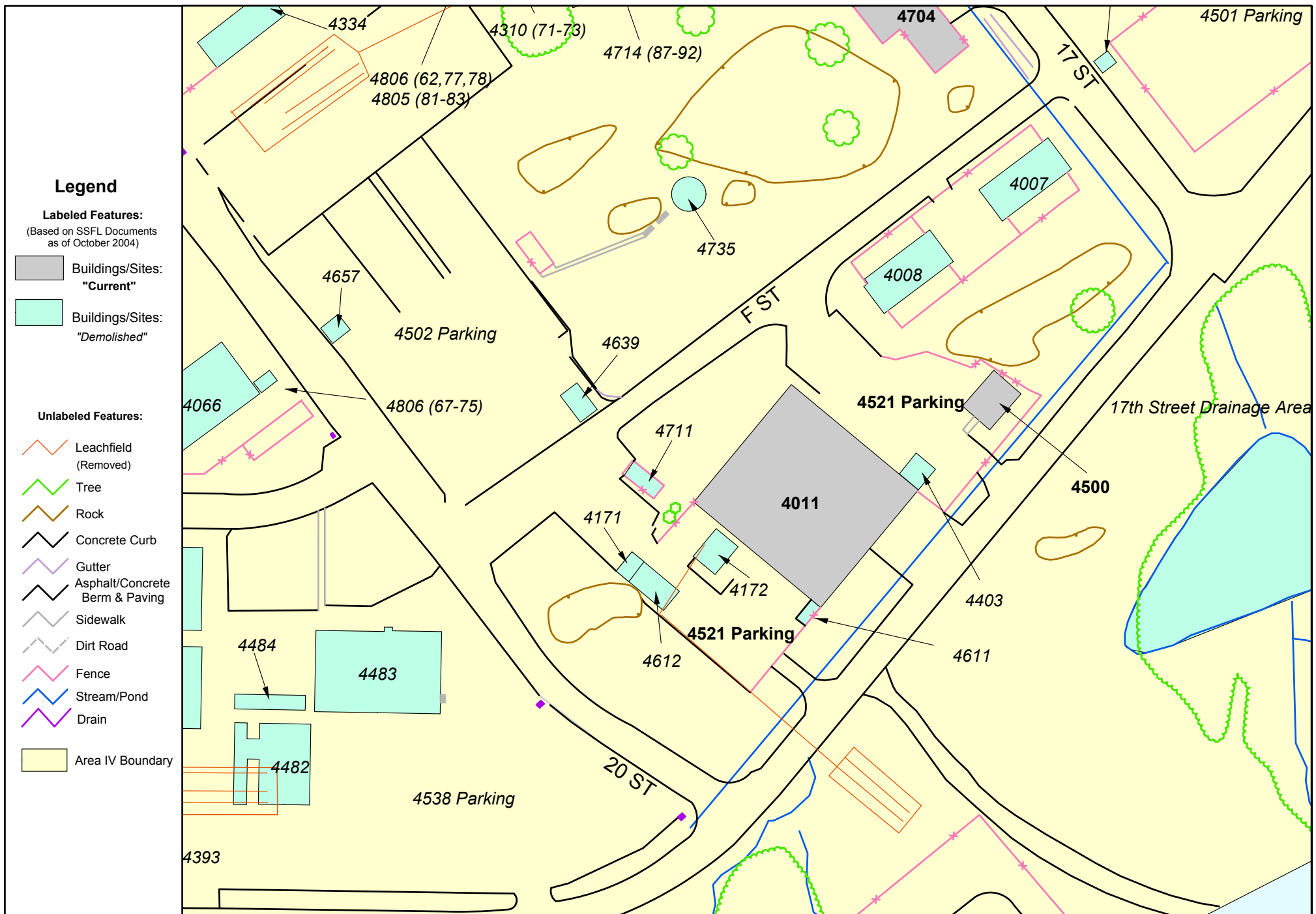
Site 4521

Building 4611

Building 4612

Fuel Tank 4735

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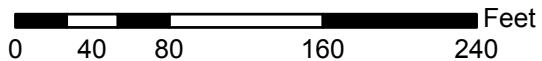


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1 inch equals 100 feet



DATE:

May 2005

Site Summary Group R
AREA IV
Santa Susana Field Laboratory, CA

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Site Summary – Building 4011

Site Identification:

Building 4011
Warehouse Support
Administration and Services Building
Development Support Shop
Manufacturing Support Shop
Machine Shop/QA.
Radiation Instrument Calibration Laboratory
Includes Building 4403, Traffic Dispatch
Includes Building 4711, Substation

Operational Use/History:

- Constructed in 1958.
- Building 4011 was used to support various non-nuclear programs until 1984.
- From 1984 to 1996 the north section of the building was used for calibration and repair of radiation instrumentation.
- The Property Inventory and Control Department used the south section of the building.
- Building 4011 is currently used to house communications equipment.

Site Description:

- Building 4011 is a 15,120-square-foot building that was constructed out of steel.¹
- Building 4011 had an associated leachfield. The leachfield was removed in 2000.²
- Serviced by Substation 4711.
- Serviced by Traffic Dispatch Building 4403.

Relevant Site Information:

- Radioactive sources for calibration were handled at the facility but most were sealed and checked annually to ensure no leakage occurred. The potential contaminants of concern are Cs-137, Co-60, Sr-90, Eu-152, Eu-154, thorium and uranium.¹
- There were three Radiological Incidents associated with Building 4011 that could have resulted in a release to the environment:
 - On April 28, 1960, to the west of the building, an Organic Moderated Reactor Experiment (OMRE) shipping cask leaked during a leak test and spilled radioactive liquid on the ground (mixed fission products) (A0531).
 - On April 13, 1985, a calibration source came loose from an actuator rod resulting in an exposure of Cs-137. A radiation survey indicated no contamination on any part of the rod (A0318).

Group R

- On December 6, 1994, the 28 Ci Cs-137 calibration source dislocated from the release pull rod. A radiation survey indicated normal background levels in the source containment box and on the release pull rod (A0658).
- Following removal of the septic tank, field line, tank, tank sludge, and the soils surrounding the tank, samples for gamma emitting radionuclides were collected and the remaining soil was found to be clean.²

Radiological Surveys:

- In 1988, the lot across the street from the building was surveyed because it was often used as a dumpsite for dirt and had the potential for contamination. The field was surveyed for mixed fission products by measuring ambient gamma exposure rates.³
 - Ambient gamma limit: < 5 µR/hr above background (background was 15.3 µR/hr).
 - Maximum ambient gamma exposure rate: 13 µR/hr.
 - Survey results were below the acceptable limits.
- A soil sample collected at the northwest corner of the building during the 1996 Area IV Radiological Characterization Survey found elevated Cs-137. The level was 0.53 pCi/g.⁴
- In 1998, Rocketdyne performed a final comprehensive radiological survey to measure total or removable surface activity on the walls, floors, ceilings, structural surfaces, concrete pads, sink traps and the roof.^{1,5}
 - The walls, floors and ceilings were surveyed for total and removable alpha and beta activity and maximum alpha and beta activity. Floors were surveyed for ambient gamma readings in µR/hr at one meter.
 - The limit criteria for surface contamination of alpha and beta-gamma emitters was (in dpm/100cm²):
 - Sr-90, Th-natural, Th-232: <1,000 total and <200 removable
 - U-natural, U-235, U-238, and associated decay products: <5,000 total and <1,000 removable.
 - Beta-gamma emitters: <5,000 total and <1,000 removable.
 - Samples were collected from sludge in the sink traps for gamma spectroscopy analyses. The sludge was contaminated with low levels of uranium and the sink and trap were removed and disposed. An additional sludge sample was taken from a location several feet into the line and the sample met release criteria.
 - Ambient gamma limit: <5.0 µR/hr at one meter from the surface.
 - Survey results were below the acceptable limits.
- The California Department of Health Services (DHS) performed verification surveys in 1998 and concurred that the facility met release criteria.^{6,7}
- The Environmental Protection Agency (EPA) conducted an oversight verification survey in 2001 for alpha, beta, beta-gamma radiation (total and removable) and gamma radiation. Surveys were performed to a quality level equal to a final status survey as defined by the Multi-Agency Radiation Survey and Site Investigation

Manual (MARSSIM). The contaminants of concern (COCs) for Building 4011 were mixed fission products, uranium, transuranic compounds, and activation and corrosion products. EPA also collected concrete core samples which were analyzed for photon-emitting isotopes.⁸

- Acceptable limits for the survey were consistent with Nuclear Regulatory Commission (NRC) Regulatory Guide 1.86 and the proposed sitewide release criteria.
- Survey results were below the acceptable limits.
- EPA field measurements confirmed the conclusions reached by Rocketdyne.

Status:

- DHS released the facility for unrestricted use December 16, 1998.⁶
- Building 4011 is currently used to house communications equipment for Area IV.

References:

- 1- Rocketdyne Report, N001SRR140128, "Building T011 Final Survey Procedure," April 19, 1994.
- 2- Boeing Data Package, no document number, "Septic and Leachfield Survey Data 011, 353, and 373."
- 3- ETEC Document, GEN-ZR-0011, "Radiological Survey of the T056 Landfill; Area from 23rd Street to Building T100; and an Area Across from Building T011," August 26, 1988.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- Boeing Internal Document, no document number, "Final Radiological Survey Data Package for Building 011, SSFL," by James Barnes, July 28, 1998.
- 6- DHS/RHB, Untitled letter, from D. Wesley (DHS/RHB) to J. Barnes, December 16, 1998.
- 7- Untitled letter, from Gerard Wong to James Barnes, September 17, 1998.
- 8- U.S. EPA Report, no document number, "Final Oversight Verification and Confirmation Radiological Survey Report for Buildings T-011, T-019, T-055, and T-100," December 20, 2002.
- 9- Historical Site Photographs from Boeing Database.
- 10- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4011



Site Summary – Building 4171

Site Identification:

Building 4171
X-Ray Building

Operational Use/History:

- Constructed in the middle 1960s.
- Building 4171 was used for storage of miscellaneous electronic equipment.²
- Demolished in 2000.³

Site Description:

- Building 4171 was located south of F Street, adjacent to 19th Street.³

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4171.⁴

Radiological Surveys:

- Radiological surveys specific to Building 4171 have not been conducted.

Status:

- Building 4171 was demolished in 2000.²

References:

- 1- Personnel Interview, Phil Rutherford, November 13, 2003.
- 2- Personnel Interview, Dan Trippeda, September 15, 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.

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Site Summary – Building 4172

Site Identification:

Building 4172
X-Ray Building

Operational Use/History:

- Constructed in the early 1970s.¹
- Building 4172 was used as an X-ray room and for storage of sealed sources that were checked every six months to ensure no leakage occurred.²
- Demolished in 2000.³

Site Description:

- Building 4172 was located adjacent to Building 4011, between 18th and 19th Streets and F Street.

Relevant Site Information:

- Use Authorization Series 68, originally dated January 30, 1975, first permitted X-Radiography in this building.⁴ Operations were subsequently permitted under Use Authorization Series 93, edition C, June 30, 1978.² Both of these authorizations permitted the use of sealed sources for radiography.⁴
- On April 13, 1977, a radiographer was exposed to radiation from a non-shielded source inside the X-ray room. It is unlikely any environmental contamination resulted from this incident (A0057).
- Building 4172 was mistakenly listed on an NRC license. The building was deleted from that license in December of 1982.

Radiological Surveys:

- No leaking sealed sources were ever detected during the biannual leak check program.² It is likely that a routine survey was performed in Building 4172 prior to demolition; however, record of such survey could not be located in the Radiation Safety Records Management System.⁵

Status:

- Building 4172 was demolished in 2000.¹

Group R

References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Personnel Interview, Phil Rutherford, November 13, 2003.
- 3- Personnel Interview, Dan Trippeda, September 15, 2003.
- 4- Rockwell International Internal Letter, 754-WTG-082-084, "Use Authorization Series 93," J. E. Harris to J. D. Moore, June 21, 1982.
- 5- Review of Radiation Safety Records Management System, 2003.
- 6- Historical Site Photographs from Boeing Database.

Photograph – Building 4172



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Site Summary – Building 4500

Site Identification:

Building 4500
Gas Bottle Dock (Near Building 4011)
Compressed Gas Bottle Storage Dock

Operational Use/History:

- Constructed in the middle 1960s.
- Building 4500 was used as a storage area for portable gas containers, including argon, nitrogen, helium and various calibration gasses.¹
- By 1998, it was listed as “foundation only,” and left unused.^{2,3}
- The walls and foundation of Building 4500 are still in place.

Site Description:

- Building 4500 was a small shed built on a concrete pad.²

Relevant Site Information:

- Building 4500 was used as a drop-off and pick-up point for suppliers. The high-pressure gas cylinders that were stored in Building 4500 were used through Area IV.
- There are no Use Authorizations and no Incident Reports associated with Building 4500.⁴

Radiological Surveys:

- Radiological surveys specific to Building 4500 have not been conducted.

Status:

- The walls and foundation of Building 4500 are still in place.

References:

- 1- Personnel Interview, John Boggio, September 29, 2003.
- 2- Personnel Interview, Dan Trippeda, September 29, 2003.
- 3- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 4- Review of Radiation Safety Records Management System, 2003.
- 5- Historical Site Photographs from Boeing Database.

Photograph – Building 4500



Site Summary – Site 4521

Site Identification:

Site 4521
Parking Lot

Operational Use/History:

- Constructed prior to 1962.¹
- Site 4521 served as a parking lot for personnel working in Building 4011 and the surrounding areas.
- Demolished in the middle 1960s.¹

Site Description:

- Site 4521 was located near Building 4011.

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Site 4521.²

Radiological Surveys:

- Radiological surveys specific to Site 4521 have not been conducted.

Status:

- Site 4521 was demolished in the middle 1960s.¹

References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

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Site Summary – Building 4611

Site Identification:

Building 4611
Paint Spray Canopy

Operational Use/History:

- Constructed prior to 1962.
- Building 4611 was a non-radiological facility. It is assumed that this building was an open structure used for spray painting. A more detailed history could not be located.¹
- On the 1962 Industrial Planning Map, Building 4611 is near 4011. Building 4611 is last labeled on the 1981 map, although it continues to be drawn on subsequent Industrial Planning Maps.¹
- Building 4611 has been demolished.

Site Description:

- Building 4611 was located just west of Building 4011 and north of G Street.¹

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4611.²

Radiological Surveys:

- Radiological surveys specific to Building 4611 have not been conducted.

Status:

- Building 4611 has been demolished.

References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

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Site Summary – Building 4612

Site Identification:

Building 4612
Maintenance
Storage

Operational Use/History:

- Constructed prior to 1962.
- Building 4612 appears on the 1962 Industrial Planning Map. On the 1964 Industrial Planning Map, a new structure, Building 4171, is shown directly adjacent to Building 4612. Building 4612 is last labeled on the 1982 map, although it continues to be drawn on subsequent Industrial Planning Maps.¹
- Building 4612 has been demolished, most likely in 2000, at the same time as Building 4171.

Site Description:

- Building 4612 was located west of Building 4011, just west of 19th Street.

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4612.²

Radiological Surveys:

- Radiological surveys specific to Building 4612 have not been conducted.

Status:

- Building 4612 was demolished, most likely in 2000, when Building 4171 was demolished.

References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003.

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Site Summary – Fuel Tank 4735

Site Identification:

4735 Fuel Tank
86,000-Gallon Fuel Oil Storage Day Tank

Operational Use/History:

- Constructed in 1977.¹
- Fuel Tank 4735 stored fuel that was pumped by the pump station to the Sodium Component Test Installation (SCTI) facility. Building 4320, the Fuel Oil Pump Building, filled the tank from the Fuel Tank Farm. Carbon steel piping connected the facilities.¹
- Bulk oil was removed in 1990 and Fuel Tank 4735 was cleaned in 1991.¹
- Demolished with the Fuel Tank Farm in 1999.¹

Site Description:

- Fuel Tank 4735 had a capacity of 86,000 gallons, was 26 feet in diameter and 24 feet tall. It was an above-ground vented structure constructed of carbon steel. A pump station was adjacent to the tank, and it contained a concrete pad with two pumps. The area was fenced.¹

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Fuel Tank 4735.²

Radiological Surveys:

- Radiological surveys specific to Fuel Tank 4735 have not been conducted.
- Portions of this area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.³
 - Background: 15.6 μ R/hr.
 - Acceptable Limit: Less than 5 μ R/hr above background.
 - Survey results were below the acceptable limits.

Status:

- The Fuel Tank Farm and associated piping was demolished in 1999.

References:

- 1- Rocketdyne Document, GEN-SP-00051, "Removal of Fuel Oil Storage and Distribution System," November 2, 1998.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Fuel Tank 4735



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Group S

Group S Map

Building 4383

Includes Building 4393, Tower at 4383

Includes Building 4883, Substation

Building 4482

Building 4483

Building 4484

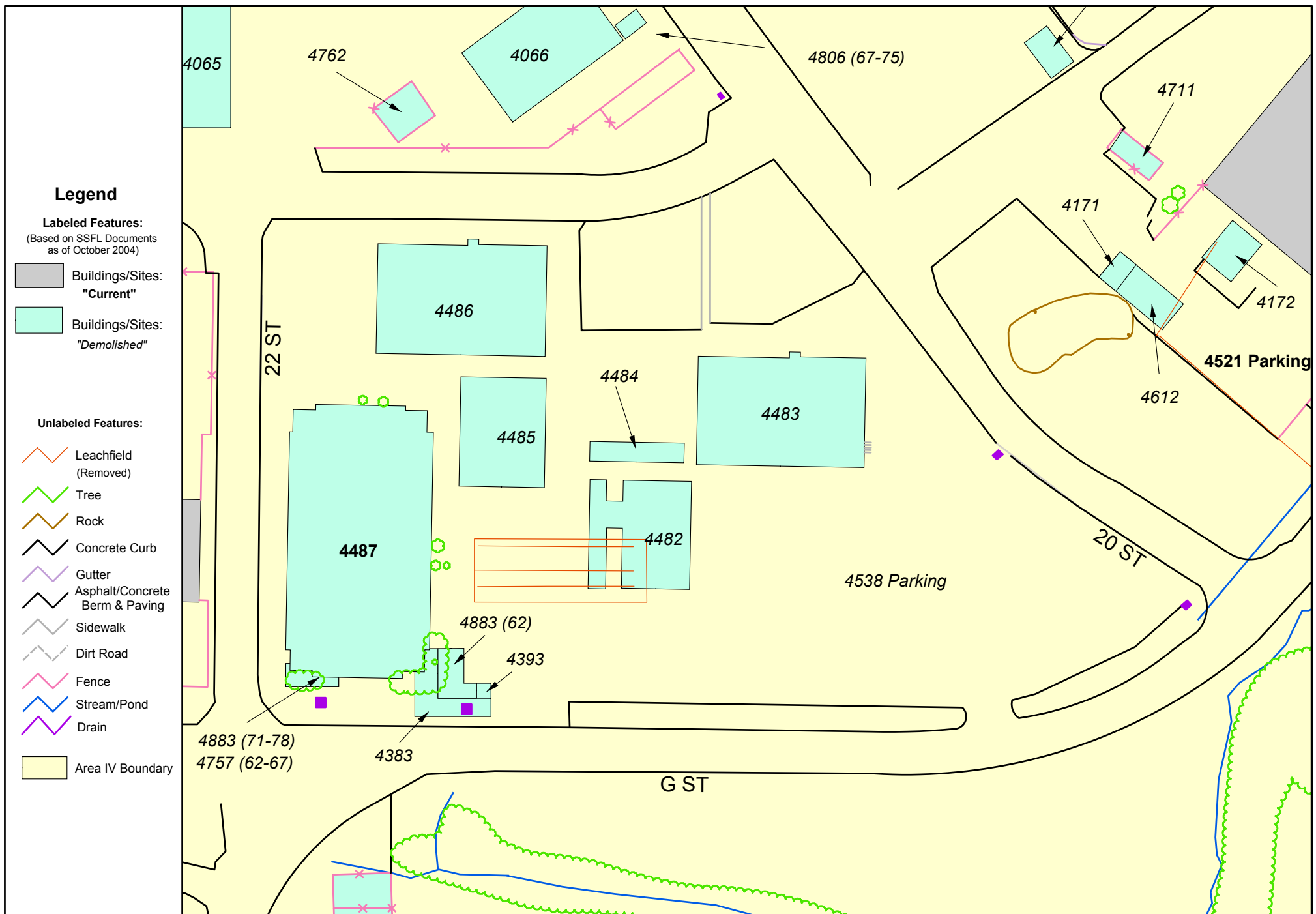
Building 4485

Building 4486

Building 4487

Site 4538

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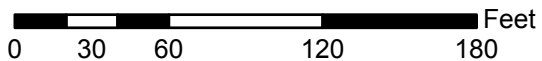


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1 inch equals 75 feet



DATE:

Map 2005

Site Summary Group S
AREA IV
Santa Susana Field Laboratory, CA

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Site Summary – Building 4383

Site Identification:

Building 4383
Instrumentation Building
Liquid Metal Engineering Center (LMEC) Assembly and Test Building
LMEC Construction Staging
Includes Building 4393, Tower at 4383
Includes Building 4883, Substation

Operational Use/History:

- Building 4383 first appears as the Instrumentation Building on the 1962 map. On the following map, in 1967, it is listed as the LMEC Assembly and Test Building. On the following 1971 map it is listed as the LMEC Construction Building and remains such until its final appearance on the 1975 map.
- Demolished in the early 1980s.^{1,2}

Site Description:

- Building 4383 is a ten-foot tall structure measuring 3,691 square feet with a steel roof, frame and siding anchored to a concrete pad.¹
- Serviced by Building 4393.
- Serviced by Substation 4883.

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4383.³

Radiological Surveys:

- Radiological surveys specific to Building 4383 have not been conducted.
- This area was covered as part of the 1994-1995 Area IV Radiological Characterization Survey.⁴
 - Background: 15.6 μ R/hr.
 - Acceptable Limit: Less than 5 μ R/hr above background.
 - Survey results were below the acceptable limits.

Status:

- Demolished in the early 1980s.

References:

- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989," April 1984.
- 2- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Rocketdyne Document, A4CM-ZR-0011, Rev. A, "Area IV Radiological Characterization Survey," August 15, 1996.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Site Summary – Building 4482

Site Identification:

Building 4482
Government Project Office

Operational Use/History:

- Constructed in 1968.¹
- Building 4482 served as an office building.
- Transferred off-site in 2000.
- Building 4482 was donated to the Wildlife Way Station, and later reclaimed. The trailer was then surveyed by both Boeing and the Los Angeles County Health Department and recommended for release for unrestricted use.²

Site Description:

- Building 4482 was a 3,130-square-foot prefabricated trailer with a steel frame and wood siding. It was anchored to a concrete slab.¹

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4482.³

Radiological Surveys:

- Boeing and the Los Angeles County Health Department conducted radiation surveys. Both surveys determined that the trailer was free of radiological contamination.^{2,4}

Status:

- Building 4482 was released by DHS in 2000.

References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer Sections at the Wildlife Way Station," February 16, 2000.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

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Site Summary – Building 4483

Site Identification:

Building 4483
LMEC Office Trailers

Operational Use/History:

- Building 4483 was constructed in 1968.¹
- Building 4483 was used for office space.
- Transferred off-site in 2000.
- Building 4483 was donated to the Wildlife Way Station and later reclaimed. The trailer was then surveyed by both Boeing and the Los Angeles County Health Department and recommended for release for unrestricted use.²

Site Description:

- Building 4483 was a 6,000-square-foot prefabricated trailer constructed with a steel frame and wood siding. It was anchored to a concrete slab.¹

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4483.³

Radiological Surveys:

- Boeing and the Los Angeles County Health Department conducted radiation surveys. Both surveys determined that the trailer was free of radiological contamination.^{2,4}

Status:

- Building 4483 was released by DHS in 2000.

References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer Sections at the Wildlife Way Station," February 16, 2000.

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Site Summary – Building 4484

Site Identification:

Building 4484
Rest Room Trailer

Operational Use/History:

- Building 4484 was constructed in 1969.¹
- Building 4484 was used as office space.
- Transferred off-site in 2000.
- Building 4484 was donated to the Wildlife Way Station and later reclaimed. The trailer was then surveyed by both Boeing and the Los Angeles County Health Department and recommended for release for unrestricted use.²

Site Description:

- Building 4484 was a prefabricated trailer with a steel frame and wood siding. It was anchored to a concrete slab.¹
- Building 4484 measured 520 square feet.¹

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4484.³

Radiological Surveys:

- Boeing and the Los Angeles County Health Department conducted radiation surveys. Both surveys determined that the trailer was free of radiological contamination.^{2,4}

Status:

- Building 4484 was released by DHS in 2000.

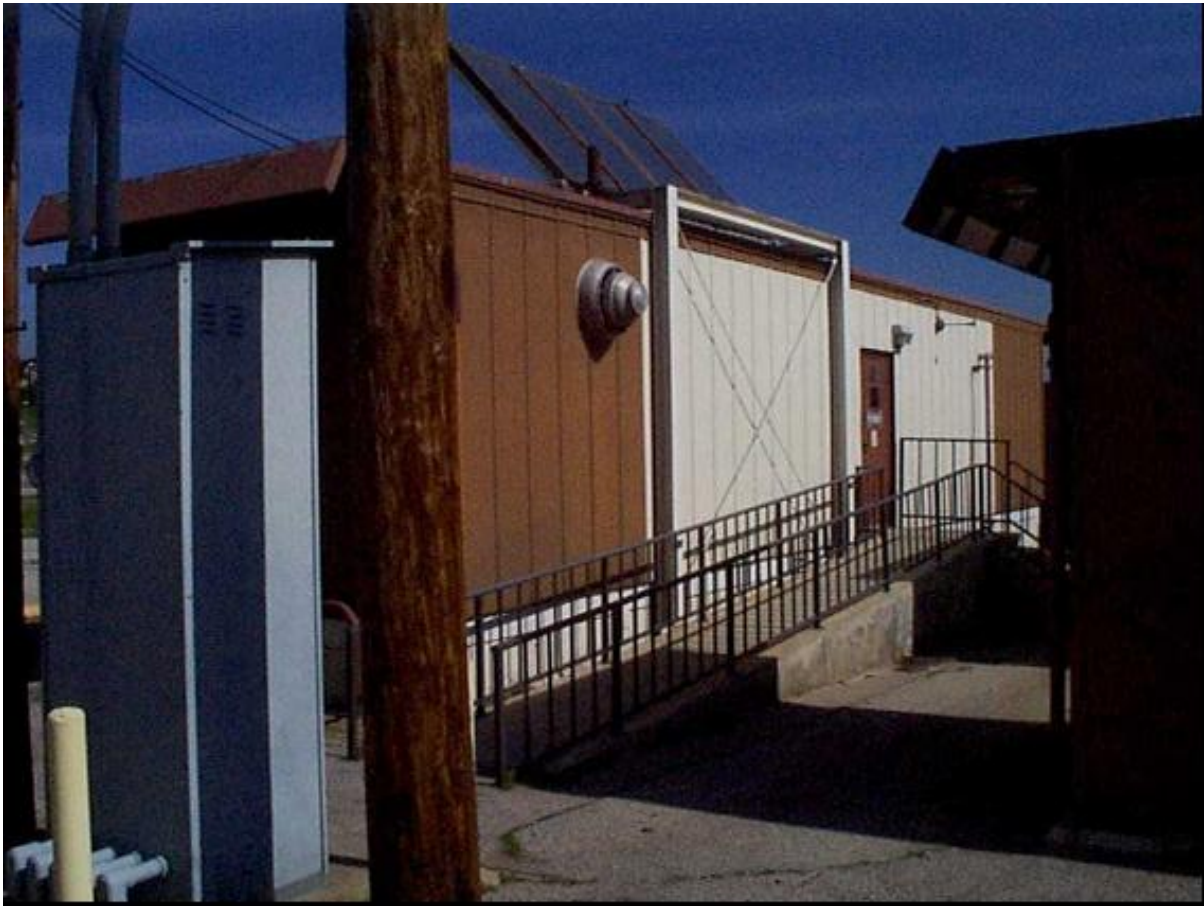
References:

- 1- ERDA Document, LR-03026, Part 1, “Site Development Plan: 1977-1981,” June 1975.
- 2- DHS/RHB, Letter, “Reference: Complaint Concerning Rocketdyne Trailers,” D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.

Group S

- 4- Boeing Document, no document number, “Radiological Survey of Donated Trailer Sections at the Wildlife Way Station,” February 16, 2000.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4484



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Site Summary – Building 4485

Site Identification:

Building 4485
LMEC Office Trailer

Operational Use/History:

- Constructed in 1968.¹
- Building 4485 was used as office space.
- Transferred off-site in 2000.
- Building 4485 was donated to the Wildlife Way Station and later reclaimed the trailer. The trailer was then surveyed by both Boeing and the Los Angeles County Health Department and recommended for release for unrestricted use.²

Site Description:

- Building 4485 was a 3,000-square-foot prefabricated trailer with a steel frame and wood siding. It was anchored to a concrete slab. Building 4485 had a ceiling height of 8 feet.¹

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4485.³

Radiological Surveys:

- Boeing and the Los Angeles County Health Department conducted radiation surveys. Both surveys determined that the trailer was free of radiological contamination.^{2,4}

Status:

- Building 4485 was released by DHS in 2000.

References:

- 1- ERDA Document, LR-03026, Part 1, “Site Development Plan: 1977-1981,” June 1975.
- 2- DHS/RHB, Letter, “Reference: Complaint Concerning Rocketdyne Trailers,” D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, “Radiological Survey of Donated Trailer Sections at the Wildlife Way Station,” February 16, 2000.
- 5- Historical Site Photographs from Boeing Database.

Photograph – Building 4485



Site Summary – Building 4486

Site Identification:

Building 4486
LMEC Office Trailer

Operational Use/History:

- Building 4486 was constructed in 1968.¹
- Building 4486 was used as office space.
- Transferred off-site in 2000.
- Building 4486 was donated to Shandon High School and later reclaimed. The trailer was then surveyed by both Boeing and the Los Angeles County Health Department and recommended for release for unrestricted use.²

Site Description:

- Building 4486 was a 6,000-square-foot prefabricated trailer constructed with a steel frame and wood siding. It was anchored to a concrete slab.¹

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4486.³

Radiological Surveys:

- Boeing and the Los Angeles County Health Department conducted radiation surveys. Both surveys determined that the trailer was free of radiological contamination.^{2,4}

Status:

- Building 4486 was released by DHS in 2000.

References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- DHS/RHB, Letter, "Reference: Complaint Concerning Rocketdyne Trailers," D. Bunn (RHB) to D. Sutherland (DOE), February 14, 2000.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Boeing Document, no document number, "Radiological Survey of Donated Trailer at Shandon High School," February 9, 2000.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4486



Site Summary – Building 4487

Site Identification:

Building 4487
Energy Technology Engineering Center (ETEC) Engineering Building
Safety Health and Environmental Affairs (SHEA) Office

Operational Use/History:

- Constructed in 1981.¹
- Building 4487 was used for office space.²
- Building 4487 was demolished in 2004.

Site Description:

- Building 4487 was a prefabricated building with stucco siding and a wood frame.^{1,2}

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4487.⁵

Radiological Surveys:

- Periodic surveys were conducted from December 2002 until Building 4487 was demolished. Entrance/exit surveys did not detect any radiological contamination.⁴
- Radiological surveys and samples taken during excavation of the Building 4487 septic tank did not detect any radiological contamination.⁴

Status:

- Building 4487 was demolished in 2004.

References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Rocketdyne Internal Document, no document number, "Assessment of Department of Energy Buildings within the SSFL," September 30, 1996.
- 3- Review of Radiation Safety Records Management System, 2003.
- 4- Personnel Interview, Phil Rutherford, June 16, 2004.
- 5- Historical Site Photographs from Boeing Database.
- 6- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4487



Site Summary – Site 4538

Site Identification:

Site 4538
Parking lot for Buildings 4482-4486

Operational Use/History:

- Site 4538 was a parking lot used by personnel working in Buildings 4482-4486, all of which were office buildings.
- Demolished in 2000.¹

Site Description:

- Site 4538 was a parking lot located on the northwest corner at the intersection of 20th and G Streets.²

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Site 4538.³

Radiological Surveys:

- Radiological surveys specific to Site 4538 have not been conducted.

Status:

- In 2000, Site 4538 was removed and the site was graded and seeded.

References:

- 1- Boeing Document, no document number, “ETEC Closure, Landscaping of Old Trailer Parking Lot,” no date given.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Review of Radiation Safety Records Management System, 2003.

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Group T

Group T Map

Building 4461

Building 4462

Includes Building 4760, Substation

Building 4463



Includes 4780, Substation

Site 4662

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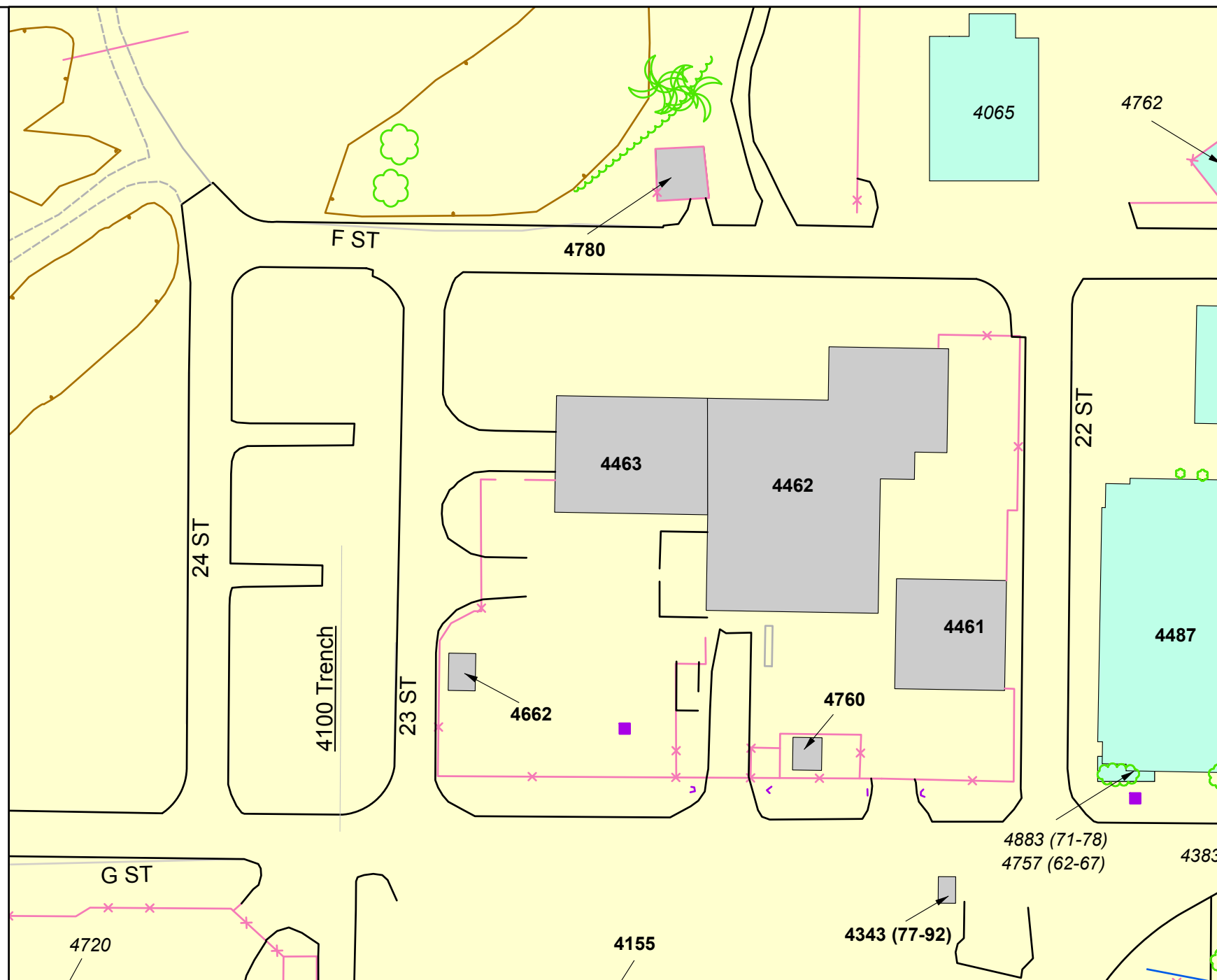
Legend

Labeled Features:
(Based on SSFL Documents
as of October 2004)

-  Buildings/Sites:
"Current"
-  Buildings/Sites:
"Demolished"

Unlabeled Features:

-  Leachfield
(Removed)
-  Tree
-  Rock
-  Concrete Curb
-  Gutter
-  Asphalt/Concrete
Berm & Paving
-  Sidewalk
-  Dirt Road
-  Fence
-  Stream/Pond
-  Drain
-  Area IV Boundary



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1 inch equals 75 feet

0 30 60 120 180 Feet

DATE:

May 2005

Site Summary Group T
AREA IV
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Site Summary – Building 4461

Site Identification:

Building 4461
Sodium Pump Test Facility (SPTF) Motor Generator Building

Operational Use/History:

- Constructed in 1977.¹
- Building 4461 housed the electrical equipment that powered the motors in SPTF.
- Building 4461 is still standing.

Site Description:

- Building 4461 was 3,600 square feet with steel siding, frame and roof located northwest of 22nd and G Streets.¹

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4461.²

Radiological Surveys:

- Radiological surveys specific to Building 4461 have not been conducted.

Status:

- Building 4461 is still standing.

References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4461



Site Summary – Building 4462

Site Identification:

Building 4462
SPTF Building
Includes Building 4760, Substation

Operational Use/History:

- Constructed in 1974.
- Building 4462 was used to test sodium pumps.
- Scheduled for demolition in 2005-2006.

Site Description:

- Building 4462 measured 6,530 square feet, including 4,920 square feet of laboratory space. The frame, siding and roof were constructed of steel.
- Serviced by Substation 4760.

Relevant Site Information:

- There are no Use Authorizations associated with Building 4462.¹
- No incidents occurred in Building 4462 that might have resulted in a release to the environment.¹

Radiological Surveys:

- Radiological surveys specific to Building 4462 have not been conducted.

Status:

- Building 4462 is scheduled for demolition in 2005-2006.

References:

- 1- Review of Radiation Safety Records Management System, 2003.
- 2- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 3- Historical Site Photographs from Boeing Database.

Photograph – Building 4462



Site Summary – Building 4463

Site Identification:

Building 4463
Sodium Cleaning and Handling Facility
Includes 4780, Substation

Operational Use/History:

- Constructed in 1974.
- Building 4463 was used to assemble, disassemble and clean pumps and other parts of the SPTF.¹
- Building 4463 is still standing.

Site Description:

- Building 4463 is 6,635 square feet and constructed of steel siding, frame and roof. The building stands 70 feet tall and has cranes with 15, 60, and 100 ton capacities.¹
- Serviced by Substation 4780.

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4463.²

Radiological Surveys:

- Radiological surveys specific to Building 4463 have not been conducted.

Status:

- Building 4463 is still standing.

References:

- 1- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4463



Site Summary – Site 4662

Site Identification:

Site 4662
Small Parts Cleaning Pad

Operational Use/History:

- Constructed in approximately 1981.
- Used for cleaning sodium off of parts in support of SPTF.
- Site 4662 is still in use.

Site Description:

- Site 4662 is a concrete pad west of Building 4462, south of 4463, and north of G Street.¹

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Site 4662.²

Radiological Surveys:

- Radiological surveys specific to Site 4662 have not been conducted.

Status:

- Site 4662 is still used.

References:

- 1- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 2- Review of Radiation Safety Records Management System, 2003

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Group U

Group U Map

Building 4062

Includes Building 4762, Substation

Building 4065

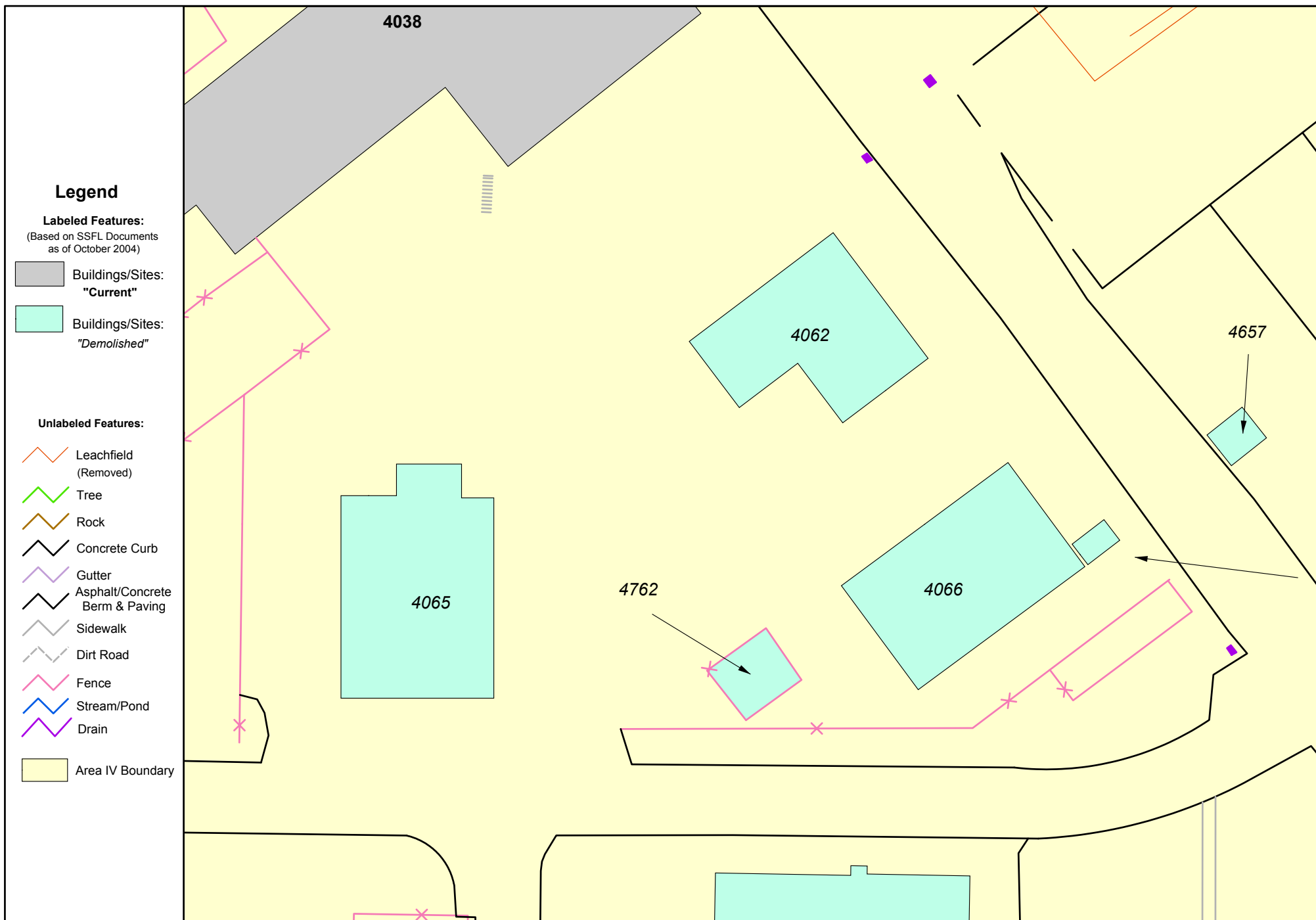
Includes Building 4762, Substation

Building 4066

Includes Building 4762, Substation

Includes Building 4806, Time Clock

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DRAWN BY:

Sapere
CONSULTING INC



1 inch equals 50 feet

0 20 40 80 120 Feet

Site Summary Group U

AREA IV

Santa Susana Field Laboratory, CA

DATE:

May 2005

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Site Summary – Building 4062

Site Identification:

Building 4062
Energy Technology Engineering Center (ETEC) Instrumentation Operations
Includes Building 4762, Substation

Operational Use/History:

- Constructed in 1963.
- Building 4062 operated as a non-nuclear support building for the ETEC program, serving as a storage facility for instrument calibration.
- Demolished in 1999.

Site Description:

- Building 4062 was a metal building consisting of a low bay and a high bay.
 - The support structure for the low bay was steel beams with corrugated steel siding and roof with concrete slab floor and concrete foundation.
 - The high bay was located over a concrete basement with a steel beam and plate floor at ground level. The support structure was steel beams with corrugated steel siding and roof. The building contained several internal partition walls with wood framing and drywall surfaces.¹
- Serviced by Substation 4762.

Relevant Site Information:

- There are no Use Authorizations and no Incident Reports associated with Building 4062.²

Radiological Surveys:

- Radiological surveys specific to Building 4062 have not been conducted.

Status:

- Building 4062 was demolished in 1999.

References:

- 1- Boeing Document, EID-04366, "Removal of DOE Buildings, Demo Pak A," May 18, 1999.
- 2- Review of Radiation Safety Records Management System, 2003.
- 3- Historical Site Photographs from Boeing Database.
- 4- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4062



Site Summary – Building 4065

Site Identification:

Building 4065
Systems for Nuclear Auxiliary Power (SNAP) Thermoelectric Converter Test
Building
Liquid Metal Engineering Center (LMEC) Chemical Laboratory
Chemistry & Metallurgical Laboratory
Includes Building 4762, Substation

Operational Use/History:

- Constructed in 1963.
- Building 4065 initially operated as a vacuum test facility. After 1973, it served as a non-nuclear chemical laboratory that performed sodium research and was equipped with a scanning electron microscope.
- Demolished in 1999.¹

Site Description:

- Building 4065 was a 6,300-square-foot single-story building with galvanized steel walls and roof anchored to a concrete slab floor. This building had various types of internal walls and partitions.²

Relevant Site Information:

- Use Authorization Series 39, original issue date May 14, 1971, permitted the examination of irradiated SNAP 8 Development Reactor (S8DR) cladding and irradiated or unirradiated S8DR fuel and use of an Electron Microprobe for one and two years respectively. The tests performed were related to the SNAP program. It is not likely that there was release to the environment.³
- Use Authorization 61, issue date December 12, 1972, permitted 50 gm of uranium, $\text{UZrH}_{1.67}$, in sealed containers for use in fuel friction tests for one year. There is no evidence of the authorization being renewed. It is likely that the fuel friction test was related to the SNAP program. It is not likely that there was release to the environment.⁴
- Use Authorization Series 74, original issue date March 20, 1974, permitted the use of the Norelco XRG-5000 analytical x-ray generator. This piece of equipment emits radiation at negligible levels.⁵
- Use Authorization Series 75, original issue date March 20, 1975, permitted the possession and use of tritiated titanium foils as gas chromatography detectors. The quantity ranged from 77.2 μCi to 180.0 μCi . This Use Authorization was renewed until 1996.⁶

Group U

- Use Authorization 164A, original issue date January 3, 1995, permitted the possession and use of a Gas Chromatograph probe containing Ni-63 source. It is not likely that there was release to the environment.⁷
- An Authorization 75v, original issue date August 29, 1996, permitted possession only of the Norelco XRG 5000 to W.S. DeBear.⁸
- On June 26, 1974, two outside contractors were exposed to radiation from an X-ray machine during routine maintenance. No environmental impact was expected from this incident (A0311).⁹
- Building 4065 did not require radiological controls during demolition.¹

Radiological Surveys:

- Radiological surveys specific to Building 4065 have not been conducted.

Status:

- Building 4065 was demolished in 1999.

References:

- 1- Boeing Document, EID-04366, "Removal of DOE Buildings, Demo Pak A," May 18, 1999.
- 2- DOE Document, NEPA Document Number ET-EM-99-03, "Categorical Exclusion under DOE NEPA Regulations for Dismantling, Removal, and Site Restoration of Demo Package A," May 18, 1999.
- 3- NA Rockwell Document, Use Authorization 39, "Operation of Electron Microprobe," L. Cooper, May 14, 1971.
- 4- NA Rockwell Document, Use Authorization 61, "Use of Normal U₂35 Fuel," P.H. Horton, December 14, 1972.
- 5- Rockwell International Document, Use Authorization 74, "Use of X-ray Generator," D.E. Goggin, March 20, 1974.
- 6- Rockwell International Document, Use Authorization Series 75, 33-105-Auth 75, "Use of Tritiated Titanium Foils as Gas Chromatography Detectors," March 20, 1975.
- 7- Rockwell International Document, Use Authorization 164A, "Possession and use of Gas Chromatograph Probe Containing Ni-63 source," January 3, 1995.
- 8- Boeing Document, Use Authorization 75V, "Possession Only of X-ray Diffraction Equipment," W.S. DeBear, August 29, 1996.
- 9- Rockwell International, Internal Letter, "Exposure Measurements with Analytical X-Ray Machine," R.J. Tuttle to Isotopes Committee, November 10, 1980.
- 10- Historical Site Photographs from Boeing Database.
- 11- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

Photograph – Building 4065



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Site Summary – Building 4066

Site Identification:

Building 4066
Instrumentation Repair and Calibration Building
Instrument Lab
Includes Building 4762, Substation
Includes Building 4806, Time Clock

Operational Use/History:

- Constructed in 1963.
- Building 4066 was used for calibrating and testing non-radiological equipment.¹
- Demolished in 1999.

Site Description:

- The LMEC Chemistry Lab was 4,800 square feet in total, including 3,524 square feet of laboratory space.²
- The frame, siding and roof were made of steel, and the floors and foundation were made of concrete. The building contained numerous internal partition walls with wood framing and drywall surfaces.³
- Serviced by Substation 4762.
- Serviced by Time Clock 4806.

Relevant Site Information:

- An incident occurred in October 1966, during which an in-line vacuum switch was removed from the tiltpour pumping system and hand carried by Atomics International (AI) personnel to the building. When the instrumentation technician opened the switch to calibrate it, a fine black powder (presumably U_3O_8) sifted out and onto his clothing and workbench. The area surrounding the workbench was subsequently decontaminated (A0599).

Radiological Surveys:

- Radiological surveys specific to Building 4066 have not been conducted.

Status:

- Building 4066 was demolished in 1999.

References:

- 1- Personnel Interview, Randy Ingersoll, September 15, 2003.
- 2- ERDA Document, LR-03026, Part 1, "Site Development Plan: 1977-1981," June 1975.
- 3- Boeing Document, EID-04366, "Removal of DOE Buildings, Demo Pak A," May 18, 1999.
- 4- Historical Site Photographs from Boeing Database.
- 5- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.
- 6- Review of Radiation Safety Records Management System, 2003.

Photograph – Site 4066



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